

WHAT IS CLAIMED IS:

1. A mop comprising:

an elongate shaft having a mopping end and a gripping end;

a channel body disposed at said mopping end of said shaft and comprising spaced-apart first and second leg portions defining a channel therebetween;

a mop element comprising a flexible, compressible, elongate liquid absorbent member, said mop element having a central axis, said mop element being disposed in a relatively hinged relationship with respect to said channel body along a hinge line, said hinge line being generally perpendicular to said central axis;

an elongate rod having an operator end and operatively connecting said operator end to one of said mop element and said channel body,

whereby the application of longitudinal force in said rod relative to the other of said mop element and said channel body causes relative hinged movement of said mop element and said channel body about said hinge line thereby drawing said mop element into said channel and causing said mop element to fold at said central axis and to become compressed between said channel body portions.

2. A mop according to claim 1, further comprising an operator handle, said operator handle including a gripping portion, a pivotal mounting on said shaft, and a pivotal connection to said operator end of said rod whereby pivotal motion of said gripping portion relative to said shaft creates tension in said rod.

3. A mop according to claim 1, said central axis dividing said absorbent member into first and second portions, said mop including a mop element support including a first wing connected to said first portion of

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said absorbent member and a second wing connected to said second portion of said absorbent member.

4. A mop according to claim 3, said mop element support including biasing means urging said first and second wings and mop element portions toward a coplanar relationship.

5. A mop according to claim 3, said mop element support including a link connecting said first wing to said second wing, said wings being hingedly connected to said link.

6. A mop according to claim 5, wherein said link has a first arm and a second arm, said first wing being hingedly connected to said link at said first arm and said second wing being hingedly connected to said link at said second arm.

7. A mop according to claim 5, said link being connected to said channel body at a hinge trunnion, said hinge trunnion defining a hinge axis, said hinge line being defined by said hinge axis.

8. A mop according to claim 3, said first leg portion including a first roller rotatably journaled thereon and engaging said first wing, said second channel body portion including a second roller rotatably journaled thereon and engaging said second wing, whereby said relative hinged movement of said mop element and said channel body causes said wings to roll in a generally arcuate path relative to said channel body portions.

9. A mop according to claim 1, said channel body having a connecting portion interlinking said first and

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axis to rotate said wings relative to said legs and relative to said link whereby said wings are closed together to a compressed position between said legs.

13. The mop of claim 12 including a handle having a gripping end, a pivotal mounting on said shaft and a pivotal connection to said rod whereby pivotal motion of said gripping end creates tension in said rod.

14. The mop of claim 13 wherein said pivotal connection is disposed between the gripping end and the pivotal mounting.

15. The mop of claim 12 including bias means urging said wings and said ends apart hingedly.

16. The mop of claim 15, said bias means comprising a spring.

17. The mop of claim 16 wherein each leg includes a roller rotatably mounted at the end thereof, engaging the respective wing, whereby rotation of said link causes said wings to roll in an arcuate path relative to said legs about said hinge axis between said compressed position and a position generally aligned with said link.

18. The mop of claim 12 including a roller rotatably mounted at the end of each leg and engaging the respective wing whereby rotation of said link causes said wings to roll in an arcuate path relative to said legs about said hinge axis.

19. The mop of claim 12 wherein said mop element includes a compressible, liquid absorbent outer layer and a flexible tough inner layer adapted to overly the support,

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said inner layer being in alignment with said wings and detachably secured thereto.

20. The mop of claim 19 wherein each wing has a wing aperture and said inner layer has an aperture aligned with each wing aperture and a fastener disposed in each wing aperture and engaging the respective aperture in said inner layer whereby said inner layer is maintained against said support.

21. An elongate mop element for use with a mop element support having a first wing and a second wing, each with a mounting aperture therein, and an intermediate portion between the wings, said intermediate portion being adapted for mounting to a mop shaft, said element comprising:

a compressible, liquid absorbent outer layer and a flexible tough inner layer adapted to overly the support, said inner layer having an aperture in alignment with the respective apertures in said wings; and,

fasteners disposed in each of said first and second wing apertures, each of said fasteners engaging the respective aperture in said inner layer whereby said inner layer is maintained against said support, each of said fasteners comprising: a rivet portion having a headed end and a longitudinally slotted outer sleeve; and an inner pin portion having a headed end and an operative end opposite the headed end thereof, the operative end thereof received within said sleeve when partially extended therein with the headed portions of the rivet portion and pin portion longitudinally spaced, whereby, when the head of said pin is moved longitudinally toward the head of said sleeve, the operative end thereof engages and enlarges said slotted

outer sleeve to retain said respective inner layer and wing together in a retained condition.

22. The mop element of claim 21 wherein said slotted sleeve has an inward projection portion and said pin portion is shaped to interact therewith to retain said inner pin portion in said retained position.

23. A mop comprising:

an elongate shaft having a mophead end and an operator end and defining a shaft axis;

what exactly defines the plane? body or mophead
a mophead disposed at the mophead end and including a body defining a plane having a longitudinal axis normal to said shaft axis and a central transverse axis forming an acute angle with said shaft axis, said body defining a central channel aligned with said central transverse axis and extending into said body toward said operator end of said shaft, and a mop element comprising an elongate flexible, compressible, liquid absorbent member overlying said body and aligned with said plane, said mop element having a central axis overlying said channel, one portion of said mop element overlying said channel being hingedly supported relative to said body normal to said transverse axis; and

112 plane in 76 figs

an elongate tension rod operatively connected through said channel to said element at a portion thereof transversely spaced from said one portion,

whereby tension in said rod relative to said shaft causes the portions of said element extending outwardly from said channel to fold together and be rotated about said one portion into said channel.

24. A mop comprising:
an elongate shaft having a mopping end and an operator
end;

a mophead disposed at the mopping end of said
shaft and including a body supported at the mopping
end and defining a mop element plane and a central
channel extending into said body from said mop element
plane toward said operator end, and an elongate,
flexible compressible, liquid absorbent mop element
having a central transverse section supported on said
body along said plane and having end portions
extending longitudinally outwardly therefrom, one end
portion of said central transverse section being
hingedly supported in said channel; and

a rod generally aligned with said shaft and
pivotally secured adjacent the other end of said
central transverse section,

whereby longitudinal force in said rod relative
to said shaft rotates said central transverse section
about said one portion whereby said ends are closed
together within said channel to compressed positions.

25. A mop element to be mounted on one of a plurality
of different mop element supports comprising:

a compressible liquid absorbent member having a
longitudinal dimensional and a generally planar
surface having a transverse central axis, said central
axis dividing said surface into a first region and a
second region;

a first and a second aperture in said first
region;

a first and a second aperture in said second region;

said first aperture in said first region corresponding to said first aperture in said second region thus defining a first pair of apertures positioned for alignment with respective apertures in a first mop element support; said second aperture in said first region corresponding to said second aperture in said second region thus defining a second pair of apertures positioned for alignment with respective apertures in a second different mop element support.

26. A mop element according to claim 25, wherein said mop element includes a third aperture in said first region and a third aperture in said second region, said third aperture in said first region corresponding to said third aperture in said second region thus defining a third pair of apertures positioned for alignment with respective apertures in a third different mop element support.

27. A mop element according to claim 25, wherein said mop element includes a relatively tough covering layer having first and second sections overlying respectively at least a portion of said first region and a portion of said second region, wherein said apertures are disposed respectively in said first and second sections of said covering layer.

28. A mop according to claim 27, wherein said covering layer is discontinuous across said central axis.

29. A kit comprising:

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a mop element to be mounted on a mop element support, said mop element comprising:

a compressible liquid absorbent member having a longitudinal dimension and a generally planar surface having a transfer central axis, said central axis dividing said surface into a first region and a second region;

an aperture in said first region;

an aperture in said second region, said apertures positioned for alignment with respective apertures in such mop element support; and

two removable rivets, each of said rivets comprising:

a rivet portion having a headed end and a longitudinally slotted outer sleeve; and

a pin portion having a head and an operative end opposite the head, the operative end thereof being received within the sleeve of said rivet portion when partially extended therein with the headed portions of the rivet portion and pin portion longitudinally spaced, whereby, when the head of said pin is moved longitudinally toward the head of said sleeve, the operative end thereof engages and enlarges said outer sleeve.

30. The kit of claim 29 wherein said slotted sleeve has an inward projection portion and said pin portion is shaped to interact therewith to retain said inner pin portion in said retained position.

31. A kit according to claim 29, wherein said mop element has a second aperture in said first region and a second aperture in said second region, said second aperture in said first region corresponding to said second aperture in said second region thus defining a pair of second apertures positioned for alignment with respective apertures in a second different mop element support.

32. A kit comprising:

a mop element to be mounted on a mop element support, said mop element comprising:

a liquid absorbent member having a support surface;

an aperture in said support surface; said aperture positioned for alignment with a respective aperture in such mop element support; and

a fastener for releasably securing said mop element to said mop element support when said apertures are aligned, said fastener being separable from said mop element and including a post portion for extending through said aligned apertures, said fastener releasably engaging at least one of said mop element and said mop element support thereby releasably securing said mop element to said mop element support.

33. A kit according to claim 32, wherein said fastener comprises a removable rivet.

34. A kit according to claim 32, wherein said support surface includes plural apertures positioned for alignment with respective plural apertures in a mop element support.

